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PATENT TRADEMARK OFFICE

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APR 28 2003

TC 1700

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

Application No. : 09/823,751  
Docket No. : 461987-008-C3  
Applicant : E. Jennings Taylor  
Filed : April 3, 2001  
Title : PULSE REVERSE ELECTRODEPOSITION FOR METALLIZATION  
AND PLANARIZATION OF A SEMICONDUCTOR SUBSTRATES  
Art Unit : 1742  
Examiner : Leader, William T.

Assistant Commissioner for Patents  
Washington, D.C. 20231

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OFFICE OF PETITIONS

**PETITION TO WITHDRAW HOLDING OF ABANDONMENT  
-- OFFICE ACTION NOT RECEIVED UNDER 37 CFR 1.181**

This is a Petition to Withdraw Holding of Abandonment as set forth in Paper #8 dated February 19, 2004. According to that paper, the application stands abandoned as a result of the applicant's failure to timely file a proper reply to the Office letter mailed on July 1, 2002. The applicant hereby petitions to withdraw the holding of abandonment based on the fact that the Office Action dated July 1, 2002 was never received by the applicant.

At all times relevant to this petition and as of the date of the Office Action dated July 1, 2002, the applicant was represented by Thomas Boland of the law firm of Vorys, Sater, Seymour and Pease. The applicant is currently being represented by the undersigned attorney and his firm.

It was the practice of Mr. Boland and his law firm to date stamp every paper received from the United States Patent and Trademark Office regarding any application, to enter any action received from the United States Patent and Trademark Office on the firm's docket and to record the paper on the face of the file jacket. If the Office Action dated July 1, 2002 had been

received, it would have been entered in the docket, appeared on the docket report, and been noted on the face of the file. Attached hereto as Exhibit A is the docket report from Vorys, Sater, Seymour and Pease regarding this application. An examination of the docket report shows that it contains no reference to the Office Action of July 1, 2002. Furthermore, attached hereto as Exhibit B is a copy of the file jacket which also contains no reference to the July 1, 2002 Office Action.

Additionally, prior to issuing the notice of abandonment, Examiner Leader contacted the undersigned regarding the application. At that time, the undersigned requested a copy of the Office Action dated July 1, 2002. The Examiner faxed the undersigned a copy of the Office Action which is attached as Exhibit C. An examination of Exhibit C shows the Office Action does not include a page 1 which is the page that would include the name and address of the attorney to whom the Office Action would be transmitted.

The absence of page 1 in combination with the fact that applicant's attorney's docket records do not indicate the Office Action dated July 1, 2002 was received indicates that the Office Action was never mailed or if mailed, it was not addressed to the applicant's attorney.

Accordingly, the applicant hereby petitions the Director to withdraw the holding of abandonment in this case, on the basis that the July 1, 2002 Office Action which forms the basis of the abandonment was not received.

Attached is a check in the amount of \$130.00 for the petition fee.

Please direct all correspondence regarding this application to the undersigned at the address indicated below.

Respectfully submitted,

Mark P. Levy, Reg. No. 27,922

THOMPSON HINE LLP  
2000 Courthouse Plaza NE  
10 West Second Street  
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291262

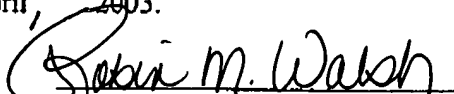
**AFFIDAVIT of THOMAS R. BOLAND**

I, Thomas R. Boland was the attorney of record in the above-identified application on July 1, 2002, which is the date an Office Action in the above-identified application is said to have been mailed by the United States Patent and Trademark Office. I, Thomas R. Boland have read and reviewed the Petition to Withdraw Holding of Abandonment and I confirm that the facts as set forth therein are correct.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

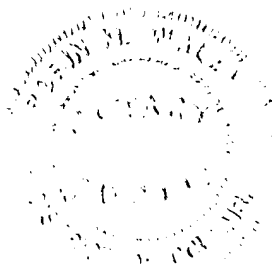
  
Thomas R. Boland

Signed and sworn before me this 11<sup>th</sup> day of April, 2003.

  
Notary

291520

ROBIN M. WALSH  
Notary Public, District of Columbia  
My Commission Expires Feb. 28, 2006



**Country Application**

Thursday, December 12, 2002

Page: 1

Case Number: 28850-106

Country: US

SubCase: 14

Client: FARADAY TECHNOLOGY, INC.

United States of America

Case Type: CIP

Status: Published

PCT National/EP Validation Date:

Application Number: 09/823,751

Filing Date: 03-Apr-2001

Publication Number: 02-0033341

Publication Date: 21-Mar-2002

Patent Number:

Issue Date:

Parent/PCT Number: 09/172,299

Parent/PCT Date: 14-Oct-1998

Parent Patent Number: 6,203,684

Parent Issue Date: 20-Mar-2001

Tax Schedule: SE

Expiration Date:

Confirmation Number: 9120

Patent Term Adjustment: 0 days

Agent:

Agent Reference No.:

Remarks: \*\*REMARKS FROM OLD CPI: NONE\*\*

**List of Actions**

Action(s) Due	Due Date		Action Taken
Report Notice to Client	29-May-2001	Reminder	14-Nov-2001
Response Due	14-Jul-2001	Due Date	14-Nov-2001
1st Extension	14-Aug-2001	Due Date	14-Nov-2001
2nd Extension	14-Sep-2001	Due Date	14-Nov-2001
3rd Extension	14-Oct-2001	Due Date	14-Nov-2001
4th Extension	14-Nov-2001	Due Date	14-Nov-2001
2 Week Last Day Reminder	29-Nov-2001	Reminder	14-Nov-2001
5th Extension - LAST DAY	14-Dec-2001	Final	14-Nov-2001
Application Status Check	14-Nov-2002	Due Date	19-Nov-2002
Application Status Check	14-Dec-2002	Due Date	

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TC 1700

User ID: ipcentral

Date Created: 10-Jul-2002

Last Update: 18-Sep-2002

TH 461987-008-C3

THIS CASE IS ENTITLED

SMALL ENTITY

STATUS

LAW OFFICE

VORYS, SATER, SEYMOUR & PEASE LLP  
WASHINGTON, D.C.



28850-106-14-United States of America

Client: FARADAY TECHNOLOGY, INC.	
Inventor(s): TAYLOR, E. Jennings (1 <sup>ST</sup> NAMED INVENTOR - CHECK FILE FOR ANY ADDITIONAL INVENTORS)	
Owner: FARADAY TECHNOLOGY, INC.	
Invention Title (from originating case): PULSE REVERSE ELECTRODEPOSITION FOR METALLIZATION AND PLANARIZATION OF A SEMICONDUCTOR SUBSTRATES	
Priority Country: United States of America	Priority Date: Refer to File
Application Number: 09/823,751	Filing Date: April 3, 2001
	PCT National/EP Validation Date:
Publication Number: 02-0033341	Publication Date: March 21, 2002
Patent Number:	Issue Date:
Foreign Agent:	
Foreign Agent Ref.:	

POA & Rev. of Prior Powers of 2-13-03

Foreign

In part of

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ALLOWED

FINAL FEE PAID

PATENT NO.

DATE

MAINTENANCE FEES

UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Washington, D.C. 20231

EXHIBIT

C

TECH CENTER 1700  
FACSIMILE TRANSMISSION COVER SHEET

DATE: February 14, 2003

REFERENCE: Serial Number: 09/823,751  
Applicant's Docket Number: 461987-008C3

TO: Mark Levy

FAX NUMBER: (937) 443-6635

VOICE NUMBER: (937) 443-6949

FROM: William Leader

FAX NUMBERS: (703) 305-3599, official faxes and (703) 305-7719, unofficial faxes

VOICE NUMBER: (703) 308-2530

MESSAGE: Copy of office action mailed July 1, 2002

NUMBER OF PAGES (INCLUDING THIS PAGE): 6

If you have not received all pages or have other difficulties with this facsimile transmission, please contact this Office as soon as possible at one of the following telephone numbers:

[ ] (703) 308-0661 (USPTO, Group 1100 Receptionist)

[x] (703) 308-2530 (Sender's Telephone Number)

3/14/03 new abandonment  
notice?RECEIVED  
FEB 18 2003  
DOCKETED

Serial Number: 09/823,751

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Art Unit: 1741

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-15 and 22-30, drawn to a method for depositing metal, classified in class 205, subclass 103.
- II. Claims 16-21, drawn to a semiconductor wafer, classified in class 257, subclass 499.

The inventions are distinct, each from the other because:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process of the group I claims can be used to make a product other than that of the Group II claims. For example, rather than making a semiconductor wafer, the process could be used to depositing a smooth metal layer on a microrough metal sheet.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Polly Owen on Monday, June 24, 2002, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-15 and 22-30. Affirmation of this election must be made by

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applicant in replying to this Office action. Claims 16-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double



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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-15 and 22-30 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,319,384. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are substantially the same, the main difference being that the range of frequency of the train of pulses recited in the patent is from about 10 Hertz to about 12,000 Hertz while the range of frequency of the pulses recited in instant claim is from about 10 Hertz to about 5,000 Hertz. Choice of a narrower range within previously claimed range is an obvious modification.

Claims 1-15 and 22-30 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,319,384. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are of the instant application are broader than, and substantially encompasses the scope of the claims in the '384 patent. Independent claim 1 of the '384 patent recites that the electric

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current is passed "for an essentially continuous period of time until microscopic depressions on said microrough surface have been filled with said metal", and further recites that "said plating bath is substantially devoid of leveling agents". These two limitation have been omitted from the instant claims, thereby broadening their scope.

The disclosure is objected to because of the following informalities: the formulas 1-4 on page 20 appear to be incomplete; the relationship of this application to the parent and grandparent application has not been set forth at the beginning of the specification.

Appropriate correction is required.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Loch patent (4,666,567), the Asai et al patent (4,489,488) and the Dubin et al patent (5,972,192) disclose the use of reverse polarity pulses in plating processes. The claims are considered patentable over the cited prior art for the reasons of record in parent application SN 09/553,623 and grandparent application SN 09/172,299.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Leader, whose telephone number is (703) 308-2530. The examiner can normally be reached Mondays-Thursdays and every other Friday from 7:30 AM to 4:00 PM eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached at (703) 308-3322. The fax phone number for *official* after final faxes is (703) 872-9311. The fax phone number for all other *official* faxes is (703) 872-9310. Unofficial communications to the Examiner should be faxed to (703) 305-7719.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0661.

William Leader:wtl  
June 26, 2002